Guidelines For Estimating

Backgrounding Costs

For Weight Range of 500 - 900 lbs
Based on 500 Head

Date: September, 2006

The following is an estimate of the costs of production associated with backgrounding feeder calves. The purpose of this budget is to assist Manitoba livestock producers to calculate their own costs and take into consideration the factors that should be included when budgeting to determine breakeven prices.

Backgrounding generally refers to the assembling, feeding and managing of calves from weaning until they are put onto a high concentrate finishing ration. In general calves fed from weaning to 800-900 pounds are referred to as background feeders. An example of a typical backgrounding operation would be, feed 500 pound steers to gain 1.75-2.75 pounds per day for approximately 100-200 days to produce 800-900 pound backgrounded feeders.

The assumptions on which costs are calculated are clearly defined in the supporting pages. When interpreting these costs for an individual situation, adjustments may be required. Note that on farm feed costs are based on market prices at the farm. It is assumed that all feed is grown on the farm, except for supplements. Each assumption must be examined and adjustments made where necessary, to apply to the producer's own situation.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI Business Development Specialist or Livestock Farm Production Extension Specialist.

Backgrounding Cattle Production Cost Summary, September, 2006

A. Operating Costs	Cost/Head	Total Cost	Your Cost
1. Feed Costs			
1.01 Ground Barley	$50.92	$25,460	
1.02 Barley Silage	$73.00	$36,500	
1.03 Hay	$2.06	$1,030	
1.04 Supplement	$15.75	$7,875	
Total Feed Costs	**$141.73**	**$70,865**	
2. Other Operating Costs			
2.01 Feeder Cost	$653.50	$326,750	
2.02 Straw	$6.40	$3,200	
2.03 Veterinary Medicine & Supplies	$17.12	$8,560	
2.04 Annual Fuel & Repair Costs	$5.65	$2,825	
2.05 Utilities	$3.80	$1,900	
2.06 Feeder Selling Cost	$33.00	$16,500	
2.07 Insurance	$5.60	$2,800	
2.08 Manure Removal	$6.40	$3,200	
2.09 Barn & Office Supplies	$0.40	$200	
2.10 Death Loss	$14.94	$7,470	
Subtotal Operating Costs	$888.54	$444,270	
2.11 Operating Interest	$21.12	$10,560	
Total Operating Costs	**$909.66**	**$454,830**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$6.13	$3,065	
3.02 Machinery & Equipment	$12.00	$6,000	
4. Investment			
4.01 Buildings	$2.62	$1,310	
4.02 Machinery & Equipment	$3.15	$1,575	
Total Fixed Costs	**$23.90**	**$11,950**	
Total Operating and Fixed Costs	**$933.56**	**$466,780**	
C. Labour	$22.00	$11,000	
Total Cost of Production	**$955.56**	**$477,780**	
Cost per lb of gain sold	**$/cwt**		
Feed Costs	$40.96		
Operating Costs	$77.94		
Operating & Fixed Costs	$84.84		
Total Costs	$91.20		
Breakeven Selling Price			
Operating Costs	$107.52		
Operating & Fixed Costs	$110.35		
Total Costs	$112.95		
Breakeven Purchase Price (based on $110/cwt market price)			
Operating Costs	$132.19		
Operating & Fixed Costs	$127.41		
Total Costs	$123.01		

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Assumptions

1. Average daily gain (ADG) was assumed to be 2.5 lbs/day.
2. It was assumed the feeder steer weighed in at 500 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 160.
4. Investment in facilities and equipment was assumed to handle 500 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			Your Cost
1. Feed Costs			
1.01 Ground Barley			
	160.00	days on ground barley	
x	6.50	lbs/feeder/day	
÷	48.00	lbs/bu	
x	$2.35	/bu	
=	**$50.92**	**/feeder**	
1.02 Barley Silage			
	160.00	days on silage	
x	34.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$27.00	/ton	
=	**$73.00**	**/feeder**	
1.03 Hay			
	15.00	days on hay	
x	5.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$55.00	/ton	
=	**$2.06**	**/feeder**	
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			
	160.00	days on supplement	
x	0.25	lbs/feeder/day	
÷	2205.00	lbs/tonne	
x	$868.00	/tonne	
=	**$15.75**	**/feeder**	

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$5.00	/feeder	
Insurance	$1.00	/feeder	
Trucking-in	$1.50	/cwt	
x	500	lbs/feeder	
÷	100	lbs/cwt	
=	$7.50	/feeder	
Feeder	500	lbs/feeder	
x	$128.00	/cwt	
÷	100	lbs/cwt	
=	$640.00	/feeder	
Total =	**$653.50**	**/feeder**	

2.02 Straw

	4.00	lbs/feeder/day	
x	160.00	days on feed	
x	$20.00	/ton	
=	**$6.40**	**/feeder**	

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$3.22	IBR,BVD,PI3,BRSV,Pastearella	
+	$0.65	Vitamin A-D	
+	$1.76	External & Internal Parasites	
+	$2.50	Blackleg & Haemophilus	
+	$1.71	Growth Implants	
+	$4.00	Antibiotics	
=	$13.84	/feeder	

Herd Health Program

Professional Services

	$135.00	/hour charge	
x	10.00	hours	
÷	500.00	feeder cattle	
=	$2.70	/feeder	

Transportation Costs

	$0.90	/km charge	
x	80	kilometres	
x	4	visits	
÷	500	feeder cattle	
=	$0.58	/feeder	

Total =	**$17.12**	**/feeder**	_____

2.04 Annual Fuel & Repair Costs

	$875.00	repairs	_____
+	$1,950.00	fuel costs	_____
÷	500	feeder cattle	_____
=	**$5.65**	**/feeder**	_____

2.05 Utilities

	$1,900.00	cost/year	_____
÷	500	feeder cattle	_____
=	**$3.80**	**/feeder**	_____

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	_____
÷	100	lbs/cwt	_____
x	$1.50	trucking cost/cwt	_____
=	$13.50	/feeder	_____

MCEC Fee, MCPA levy, selling commission

	$2.00	MCEC Fee	_____
+	$2.00	MCPA Levy	_____
÷	$15.50	commission	_____
=	$19.50	/feeder	_____

Total =	**$33.00**	**/feeder**	_____

2.07 Insurance

	$143,148	building & equipment investment	_____
x	$0.50	/$100 capital	_____
÷	100	/$100	_____
÷	500	feeder cattle	_____
=	$1.43	/feeder	_____
	$407,500	herd investment	_____
x	$0.50	/$100 capital	_____
÷	100	/$100	_____
÷	500	feeder cattle	_____
=	$4.08	/feeder	_____
	$45.00	additional coverage for liability	_____
÷	500	feeder cattle	_____
=	$0.09	/feeder	_____

Total =	**$5.60**	**/feeder**	_____

2.08 Manure Removal

	$3,200	annual removal cost	_____
÷	500	feeder cattle	_____
=	**$6.40**	**/feeder**	_____

2.09 Barn & Office Supplies

	$200.00	total barn expenses	_____
÷	500	feeder cattle	_____
=	**$0.40**	**/feeder**	_____

2.10 Death Loss

	$653.50	feeder cattle cost	_____
+	$873.60	maximum value	_____
-	$33.00	selling costs	_____
÷	2.00	average	_____
x	2.00	% mortality rate	_____
=	**$14.94**	**/feeder**	_____

2.11 Operating Interest

(Operating interest is charged on one half the subtotal operating costs)

	$653.50	feeder cost	_____
+	$117.52	½ of feed & other costs	_____
x	6.25	% operating interest	_____
x	160.00	days on feed	_____
÷	365.00	days /year	_____
=	**$21.12**	**/feeder**	_____

Capital Costs

Buildings,Corrals & Water System		
Windbreak fence	$6,300	
Pens	$5,300	
Handling Facilities	$5,500	
Waterers	$5,000	
Gates	$1,280	
Feeders	$1,500	
Bunk Feeders	$18,768	
Well & Pressure System	$6,000	
Grain Bin	$3,500	
Landscaping	$15,000	
Total	**$68,148**	
Machinery & Equipment		
Tractor & Loader	$50,000	
Miscellaneous	$25,000	
Total	**$75,000**	
Total Investment	**$143,148**	

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

	$68,148	original cost	
-	$6,815	salvage value	
÷	20.00	years useful life	
÷	500.00	feeder cattle	
=	**$6.13**	**/feeder**	

3.02 Machinery & Equipment

	$75,000	original cost	
-	$15,000	salvage value	
÷	10.00	years useful life	
÷	500.00	feeder cattle	
=	**$12.00**	**/feeder**	

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$68,148	original cost	_____
+	$6,815	salvage value	_____
÷	2.00	average	_____
x	3.50	% investment rate	_____
÷	500.00	feeder cattle	_____
=	**$2.62**	**/feeder**	_____

4.02 Machinery & Equipment

	$75,000	original cost	_____
+	$15,000	salvage value	_____
÷	2.00	average	_____
x	3.50	% investment rate	_____
÷	500.00	feeder cattle	_____
=	**$3.15**	**/feeder**	_____

C. Labour

	2.0	hours/feeder/year	_____
÷	$11.00	/hour	_____
=	**$22.00**	**/feeder**	_____

Breakeven Calculations

Cost per lb of gain sold (shrunk weight)				
Feed Costs		$141.73	feed cost	
	÷	346.00	lbs gained weight	
	=	**$0.41**	**/lb (gain sold)**	
Operating Costs		$909.66	operating costs	
	-	$640.00	feeder cost	
	÷	346.00	lbs gained weight	
	=	**$0.78**	**/lb (gain sold)**	
Operating & Fixed		$933.56	oper. & fixed costs	
	-	$640.00	feeder cost	
	÷	346.00	lbs gained weight	
	=	**$0.85**	**/lb (gain sold)**	
Total Costs		$955.56	total costs	
	-	$640.00	feeder cost	
	÷	346.00	lbs gained weight	
	=	**$0.91**	**/lb (gain sold)**	
Breakeven selling price (shrunk weight)				
Operating Costs		$909.66	operating costs	
	÷	846.00	lbs shrunk weight	
	=	**$1.08**	**/lb**	
Operating & Fixed		$933.56	oper.& fixed costs	
	÷	846.00	lbs shrunk weight	
	=	**$1.10**	**/lb**	
Total Costs		$955.56	total costs	
	÷	846.00	lbs shrunk weight	
	=	**$1.13**	**/lb**	
Breakeven purchase price (shrunk weight)				
Operating Costs		846.00	lbs shrunk weight	
	x	$110.00	$/cwt selling price	
	=	$930.60	income	
	-	$269.66	operating less feeder cost	
	÷	500.00	lbs purchase weight	
	=	**$1.32**	**/lb**	

Operating & Fixed		846.00	lbs shrunk weight	
	x	$110.00	$/cwt selling price	
	=	$930.60	income	
	-	$293.56	op. & fixed less feeder cost	
	÷	500.00	lbs purchase weight	
	=	**$1.27**	**/lb**	
Total Costs		846.00	lbs shrunk weight	
	x	$110.00	$/cwt selling price	
	=	$930.60	income	
	-	$315.56	total less feeder cost	
	÷	500.00	lbs purchase weight	
	=	**$1.23**	**/lb**	

For more information contact your local MAFRI Office.

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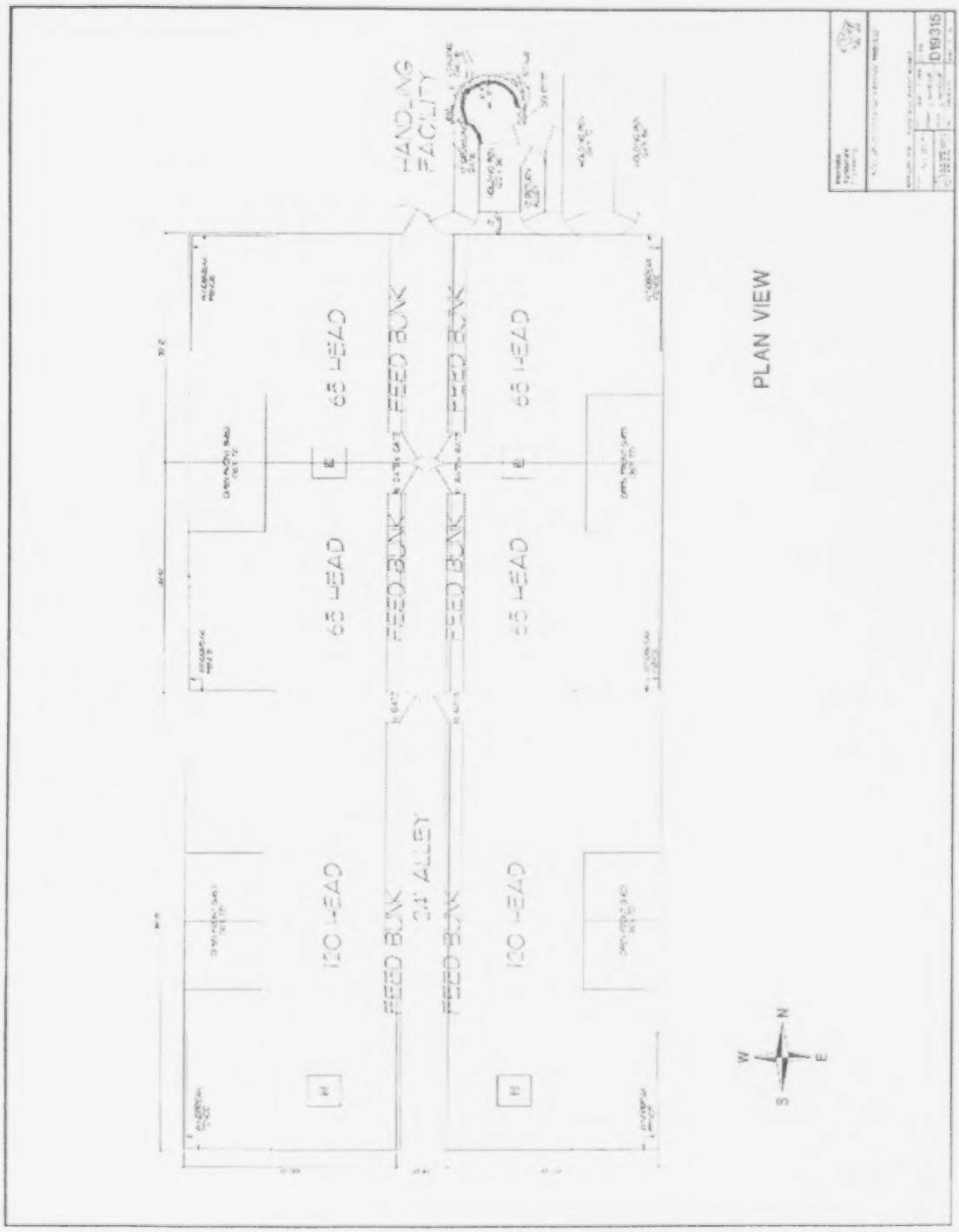

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